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ABSTRACT

The document presents the final report of a project to develop mainstreaming workshops to help vocational administrators in California include handicapped students in their programs. Following a needs assessment survey of approximatey 500 vocational administrators, guides to material resources and support services were prepared and distributed at eight workshops which served 348 people. Among the workshop topics were: legal requirements for serving handicapped students, technical assistance available to vocational educators through the State Department of Education, preparing effective individual education plans, planning programs for handicapped students, getting students ready to function on the job, equipment and workplace design, strategies for assessing and placing handicapped students, and strategies for instructing handicapped students in mainstream classrooms. Over 98% of those completing end of workshop questionnaires felt that the workshop would be helpful in their work. Over 80% gave one of the two most favorable responses (of four possibilities) in assessing workshop content and organization. (Author/DLS)

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Final Report

Project No.: 498AH70316
Grant No.: G007702227

Peter R. Dahl
American Institutes for Research
P.O. Box 1113
Palo Alto, California 94302

MAINSTREAMING WORKSHOPS FOR VOCATIONAL ADMINISTRATORS

September 1979

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Peter R. Dahl

American Institutes for Research

Palo Alto, California 94302

September 1979

The research reported herein was performed pursuant to a grant with the Office of Education, U.S. Department of Health, Education, and Welfare. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education

Bureau of Occupational and Adult Education

AUTHOR'S ABSTRACT

The purpose of this project was to provide information to California vocational administrators to help them include handicapped students in their programs. Following a needs assessment survey of approximately 500 vocational administrators, guides to material resources and support services were prepared to be distributed at workshops to be held around the state. There were eight workshops in all, serving 348 people.

Topics included at one or more workshops were: legal requirements for serving handicapped students; technical assistance available to vocational educators through the State Department of Education; how an administrator and a facilitator work together to provide services; preparing effective individual education plans; planning programs for handicapped students; getting students ready to function on the job; Berkeley's experience with handicapped students; where the system succeeds, where the system fails--a consumer's point of view; equipment and workplace redesign; examples of mainstreaming in California; strategies for assessing handicapped students; strategies for instructing handicapped students in mainstream classrooms; and strategies for placing handicapped students.

Over 98% of those completing end-of-workshop questionnaires felt that the workshop would be helpful in their work. Over 80% gave one of the two most favorable responses (of four possibilities) in assessing workshop content and organization.

AIR ABSTRACT

Final Report
Mainstreaming Workshops for Vocational Administrators

Peter R. Dahl

Background of the Problem and Objectives of the Project

Vocational educators are increasingly being asked to serve handicapped students in mainstream vocational programs. Because of their key position, administrators are called upon to ensure that high quality services are provided to handicapped students, that services conform to legal requirements pertaining to the education of the handicapped, that adequate records are kept to document services, and that teachers and other staff have available the resources they need to serve handicapped students. Many concerns arise as administrators seek to satisfy these demands for which traditional training in vocational education may not have prepared them. Accordingly, the purpose of this project was to provide California vocational administrators with critical information on serving handicapped students by: (a) presenting a series of workshops and (b) providing information aobut resources upon which they could draw to improve their programming.

Planning and Design of the Project

The following steps were undertaken in conducting the project:

- Identify the primary areas of concern that should be addressed in the workshops and identify resources of value to vocational educators in serving handicapped students in their programs.
- Develop workshop materials (including resource materials) to address the concerns thus identified; develop a strategy for conducting the workshops.
- Plan and conduct workshops to increase skills of vocational administrators and to determine the adequacy of the workshop materials.
- Disseminate workshop and resource materials.

Project Number: 66900 Project Duration: September 15, 1977
Grant Number: G007702227 July 15, 1979
Sponsor: DHEW/Bureau of Occupational and Adult Education
Division of Research and Demonstration
7th and D Streets, S.W.
Washington, D.C.
Monitor: Jack Wilson
Project Personnel: Peter Dahl, Project Director; Jane Spangler, Angelica Hampel, Patricia Maloney, Carol Kaplan, Robert Weisgerber, Irene Yurash

The first two steps will be discussed in this section of the abstract, the others in subsequent sections.

Step 1: Identify Primary Areas of Concern and Resources Relevant to these Concerns. A survey of approximately 500 California vocational administrators was undertaken to determine their interest in learning more about 22 specific topics in the following broad areas: delivering vocational services needed by handicapped students, legal provisions pertaining to vocational education for the handicapped, and resources upon which vocational administrators could draw in serving handicapped students. Each of the 22 topics proved to be one about which over 80% of respondents indicated they needed to become better informed.

Step 2: Develop Workshop Materials and a Workshop Strategy. That each topic asked about in Step 1 was of interest to potential participants argued strongly for the provision of complementary resource materials and workshop topics, since everything could not be covered during a workshop. Accordingly, two resource guides were prepared for distribution to participants: one described printed and audio/visual resources, the other agencies that might be able to assist in service delivery. In addition, booklets on legal requirements and miscellaneous other resource materials obtained from various agencies were distributed. Topics for each of the first four workshops were selected from among the following: legal requirements for serving handicapped students; technical assistance available to vocational educators through the State Department of Education; how an administrator and a facilitator work together to provide services; preparing effective individual education plans; planning programs for handicapped students; getting students ready to function on the job; Berkeley's experience with handicapped students; where the system succeeds, where the system fails: a consumer's point of view; equipment and workplace redesign; examples of mainstreaming in California.

Based on participant reactions, we settled on four standard topics for the last four workshops and made sure that each topic included the opportunity for active involvement by participants. The topics: strategies for assessing handicapped students, strategies for instructing handicapped students in mainstream classrooms, equipment and workplace redesign, and strategies for placing handicapped students.

Execution and Analysis of Results

Step 3: Plan and Conduct Workshops. Eight workshops were conducted using the strategies discussed above. Each was designed to serve several propinquant counties, corresponding to those for which resources were listed in one or, in a single case, two of the guides. Workshops were evaluated immediately upon their conclusion and, again, several weeks later. The former evaluation was intended to get participants' immediate impressions of the workshop content, the organization of the workshop, whether or not what they leaned at the workshop would be helpful on the job, and the specific content areas in which they felt they had learned something. The latter was intended to discover if any noteworthy incidents involving handicapped students had occurred since the workshop and, if so, if the workshop had been helpful in resolving the incidents.

Altogether, 348 people attended the workshops. On the immediate evaluation, one of the top two (of four) responses was given to each of the following questions by the overwhelming majority of respondents: "How interesting was the workshop?" (92.3%); "How do you rate the topic selection?" (90.1%); "Generally speaking, how appropriate was the amount of time spent on each topic?" (85.5%); and "How do you rate the ordering of topics?" (81.3%). (Ratings from the last four workshops were higher than those from the first four.) Over 98% of those responding indicated that the workshop would be useful in their jobs ("very useful," 41.9%; "somewhat useful," 40.1%; "a little bit useful," 16.2%). Again, ratings were higher for the last four workshops than for the first four.

Most respondents to the follow-up questionnaire (74 of 92) indicated that no noteworthy incidents had occurred since the workshop. Of the 18 that did report a noteworthy incident, 13 indicated that the workshop presentations or resource materials were helpful. The range of situations in which the materials or presentations proved useful is quite varied, and the students involved had a wide variety of handicapping conditions.

Interpretations and Implications

The project gave several hundred Californian vocational educators an opportunity to learn more about teaching handicapped students effectively. Guides to support services will be used throughout the state by vocational educators seeking to obtain specialized help in their programming.

Provisions for Utilization of Results

Step 4: Disseminate Workshop and Resource Materials. Materials were given to workshop participants; they were also distributed through BOAE, the California State Department of Education, and other outlets, as follows: (1) Support Services for Exceptional Students--ten volumes of each to the Project Officer, and an average of 95 to the State Department of Education; (2) Resources for Mainstreaming Exceptional Students--ten to the Project Officer; (3) Workshop Materials and Suggestions for Workshop Development--25 to the Project Officer. In addition, each of these has been submitted to ERIC, and is available from AIR on a cost-recovery basis.

Publications of the Project

Dahl, P.R., Workshop materials and suggestions for workshop development. Palo Alto, California: American Institutes for Research, 1979.

Maloney, P. Resources for mainstreaming exceptional students in vocational education programs. Palo Alto, California: American Institutes for Research, 1978.

Spangler, J., Hampel, A., Maloney, P., & Kaplan, C. Support services for exceptional children (9 vols.). Palo Alto, California: American Institutes for Research, 1978, 1979.

FOREWORD

This report recapitulates the activities undertaken in planning, conducting, and evaluating a series of workshops for California vocational educators on the topic of teaching handicapped students in mainstream vocational classes. Whatever success the project enjoyed was in large part due to the contributions of a wide variety of people, including the following:

Members of the Project Advisory Panel

Mr. James Beck, San Jose State University
Ms. Sharon Davis, The Council for Exceptional Children
Mr. George Glaeser, San Diego County Department of Education
Dr. Gordon Johnson, California State University at Fresno
Dr. Leroy Jones, California State Department of Education
Dr. Lloyd Tindall, University of Wisconsin at Madison

Guests who Attended the Meeting of the Project Advisory Panel

Mr. Roland Boldt, California State Department of Education
Mr. Sam Cespedes, United States Office of Education
Mr. Theodis Hawthorne, California State Department of Education

Presenters at the Workshops

Ms. Kathleen Barrett, California Association of the Physically Handicapped
Ms. Cheryl Cairns, Easter Seal Workshop, Burlingame
Mr. Joseph W. Goddard, Sweetwater Union High School District
Mr. Theodis Hawthorne, California State Department of Education
Dr. Gordon F. Johnson, California State University at Fresno
Dr. Kenneth J. Karr, Educational Consultant, San Diego
Mr. Robert Kriesel, Tulare County Training Center for the Handicapped
Ms. Susan Lebow, Easter Seal Workshop, Burlingame
Mr. Clarence Nicodemus, California State Department of Rehabilitation
Ms. M. L. Oxford, Sweetwater Union High School District
Mr. Duane Roemmich, San Diego Unified School District
Mr. Robert Stephenson, Tulare County Training Center for the Handicapped
Ms. Mary Thielen, San Diego Mesa College
Dr. Robert Weisgerber, American Institutes for Research

American Institutes for Research Staff

Ms. Angelica Hampel
Ms. Carol Kaplan
Ms. Patricia Maloney
Ms. Jane Spangler
Dr. Robert Weisgerber

I would like to thank them all. Any shortcomings in the project would most surely reflect my failings, not theirs.

Peter R. Dahl

Peter R. Dahl, Ph.D.
Project Director

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CHAPTER I
INTRODUCTION

This report describes a project undertaken to provide training and resource information to California vocational administrators pertinent to the education of handicapped students. This section provides a brief overview of recent laws pertaining to education of handicapped students and discusses the vocational potential of handicapped people. These discussions provide a context for the project; more thorough treatments may be found in the works cited.

LEGISLATIVE BACKGROUND

The rights of handicapped people have been substantially reinforced by recent legislation, much of which has a direct impact on education in general and vocational education in particular. Perhaps the most important piece of legislation is the "Education of All Handicapped Children Act" (PL 94-142). Some major provisions of concern to local administrators are the following:

- Handicapped children must be educated in the least restrictive environment; i.e., they must be educated with non-handicapped children insofar as it is possible to do so (20 USC 1412 (5) (B)).
- An individualized educational plan must be prepared for each handicapped child specifying, among other things, the present status of the child, long- and short-term goals and objectives, type of services to be provided, and means for evaluating progress (20 USC 1402 (19)). These plans will be prepared following a "planning conference" that must include a representative of the LEA, the child's teacher(s), a parent or guardian, and, if appropriate, the child; the LEA must call the conference and take steps to assure that parents have a chance to participate (20 USC 1414 (a)(5)).
- A "free, appropriate public education" (i.e., all services specified in the plan) must be provided (20 USC 1412 (i)).

The way in which certain provisions of the law will affect the vocational administrator was discussed recently in the American Vocational Journal (Phelps and Halloran, 1976). According to these authors:

Vocational administrators will be required to design and operate comprehensive series of programming alternatives ranging from self-contained, separate programs to regular vocational programs offering instruction and supportive services on an individual, prescriptive basis. Special scheduling modifications such as extended instructional periods and open-entry/open-exit programs will be essential.

Collaboration with other administrators to establish vehicles for regular communication (such as common planning periods) between vocational education personnel and special supportive staffs will be extremely critical. Maintenance of close working relationships with parents and advocacy groups will be vital in formulating and continually improving vocational program alternatives and services.

Perhaps the most significant challenge will be the development of effective inservice programs to enable vocational educators to expand their skills in teaching the handicapped, at the same time encouraging communication and commitment among all staff members working with the handicapped.

PL 94-142 was not, of course, the first legislative effort to provide vocational services to handicapped students. LaVor (1976) discusses the history of federal legislation favoring the handicapped. Laws of particular importance for vocational education are:

- Vocational Education Act of 1963 (PL 88-210) which assigned responsibility to the states to provide vocational education to the handicapped;
- Vocational Education Amendments of 1968 (PL 90-576) which established a 10% set aside for special services to handicapped students in each state's basic grant;
- Education Amendments of 1976 (PL 94-482) which continued support for services to the handicapped; and
- Rehabilitation Act of 1973 (PL 93-112); regulations pursuant to Section 504 of the Act make requirements of educational institutions covering student evaluation and educational programming.

Of these, the Vocational Education Amendments of 1968 no doubt had the greatest pre-94-142 impact on vocational programming for the handicapped. A thorough report on the effect of these amendments (Olympus Research Corporation, 1977) showed that, while much remains to be accomplished, many services began that would not have existed without this support, and that research projects sponsored under Part C of the Act have explored many aspects of providing vocational services to the handicapped.

According to the Olympus report, Part C monies helped to support services varying widely in approach and quality. Service delivery models varied from subcontracting training to sheltered workshops, to mainstreaming. Similarly, wide variation could be observed in the severity of handicaps of those served and in the complexity of skills taught.

Thus, the effect of 94-142 was not to break entirely new legal ground for vocational education. Rather, it placed heavier demands on regular programs to provide services to handicapped students, and increased the requirements surrounding the provision of such services. These serve to place demands on the vocational administrator as described in the excerpt from the Phelps and Halloran article, above.

EDUCATIONAL BACKGROUND

While noting these effects of the law, one must also recognize two further points: (1) that it is quite realistic to expect a great many handicapped people to succeed in a wide variety of occupations and (2) that vocational education programs are realistic training locations for many handicapped students. We will illustrate these with a few examples.

As part of an earlier AIR project, 333 programs offering training and placement opportunities for the severely handicapped were surveyed to identify jobs that clients or former clients now hold. Even in this limited survey, over 400 jobs were listed (Cook, Dahl, & Gale, 1978); jobs held by handicapped individuals varied greatly in level of sophistication and ranged widely across areas of human endeavor. And this only scratches the surface; publications of organizations concerned with handicapped individuals regularly print stories about successful handicapped people, and any department of vocational rehabilitation can provide long and impressive lists of job placements. The implication of this is that if the handicapped are to have available to them the full range of opportunities from which they can benefit--and that range is exceptionally broad--then those educational opportunities available to the non-handicapped must also be made available to them. To open the full range of opportunities will require the careful blending of regular and special services, as it is both impractical and undesirable for special services to be developed that duplicate the bulk of areas of training available to the general, non-handicapped population.

Vocational educators have been working to provide those opportunities. The National Association of Vocational Education Special Needs Personnel (NAVESNP) has been formed within the American Vocational Association and many states, school districts, universities, advocacy groups, and others are working in this area. At the same time, a large number of guides, handbooks, and other documents are becoming available to further this effort (e.g., Dahl, Appleby, and Lipe, 1978; Davis and Ward, 1978; Moore and Engleman, 1977; Phelps, no date; Weisgerber, 1978). Thus, the experience and resources are there to move forward in expanding opportunities.

PROJECT OBJECTIVES

Thus, two strands come together: the rights of handicapped students to vocational education in regular programs and the realistic expectation that these students can succeed in such programs and, later, on the job. Inevitably, it is the vocational program administrator who must braid these strands. To assist California vocational administrators in doing this effectively, this project undertook to present a series of workshops and to develop a set of resource materials. The specific objectives were:

1. Identify the primary areas of concern that should be addressed in the workshops and identify resources of value to vocational educators in serving handicapped students in their programs.

2. Develop workshop materials (including resource materials) to address the concerns identified in Objective 1; develop a strategy for conducting the workshops.

3. Plan and conduct workshops to increase skills of vocational administrators and to determine the adequacy of the workshop materials.

4. Disseminate workshop and resource materials.

The balance of this report describes activities undertaken to reach these objectives.

CHAPTER II
PROJECT PROCEDURES AND RESULTS

The project can be roughly divided into workshop planning, workshop conduct, post-workshop evaluation, and dissemination phases. We will discuss each in turn. It should be recognized that these phases overlapped to some extent--for example, the results of the first four workshops helped us in revising procedures for the later workshops.

WORKSHOP PLANNING

Much of the work prior to the first of the workshops was described in the Planning Document (Dahl, 1978) which followed the meeting of the project Advisory Panel. The discussion of the Advisory Panel meeting and resulting survey, below, are taken largely from that document.

Planning in Advance of the First Workshop

Planning largely concerned the collection of information about perceived needs of respondents, and the development of ways to meet those needs. Generally, we anticipated that the needs would appear in the following areas:

- types of vocational services needed by handicapped students,
- legal provisions pertaining to vocational education for the handicapped, and
- resources upon which vocational administrators could draw in serving handicapped students.

Figure 1 shows some of the subareas which, at the time of proposal preparation, we had reason to believe would be of interest under each of these main headings. These were refined during a meeting of the Advisory Panel held October 25, 1977, and a subsequent survey of California vocational administrators.

The Advisory Panel Meeting

Two items discussed at the Advisory Panel meeting were of particular importance for identifying topics to be addressed at the workshops and in the resource materials. These were a preliminary version of the survey instrument and sample strategies for presenting resource information.

Figure 1

SUMMARY OF AREAS OF CONCERN IDENTIFIED IN THE PROPOSAL

Concerns in Providing Services

- How can an appropriate placement for a handicapped student be determined? What considerations are the same as for a non-handicapped student? What additional considerations are there?
- What kinds of supportive services are needed in the mainstream class? In supplementary instructional services? In part-time special classes? Who can provide these services? How can I arrange for them? Who will pay for them?
- What new skills will my staff need? How can they gain these skills?
- What operational models could be used to assure that appropriate placements are made, adequate support services are provided, and suitable training given to staff?
- What policies should be established regarding services to handicapped students?
- What standards should be used to judge the success of handicapped students? How are they the same as for any student? How do they differ?
- How will existing facilities or equipment have to be modified?
- What factors should be taken into account in design of new facilities or the purchase of new equipment?

Concerns in Assuring That Legal Requirements Are Met

- What steps will be required to alert handicapped persons to the opportunities available to them?
- What, operationally, will "due process" entail? How extensive will be the time demands of placement hearings, appeals, and other activities?
- In operational terms, what constitutes a "free appropriate public education," an "individual educational program," the "least restrictive environment," an acceptable level of "parent involvement," and other requirements that may arise as a matter of law?
- What types of records must be kept to document compliance?
- To whom can the administrator turn for advice about legal requirements?
- Much preparation may have to be done to accommodate certain students--teacher training, building modifications, and equipment and curricular alterations, for example. What is the timetable for such changes?

Concerns in Identifying, Obtaining, and Using Resources to Facilitate Mainstreaming

- What resources are available? Where can they be obtained? How much do they cost?
- How can one tell which resources are the best for which needs? When will printed (or multimedia) resources be sufficient and when should consultants be called in?
- How should the resources be presented to vocational staff? What should be included in inservice training? What is available at local universities?

Advisory Panel suggestions influenced the specific content of survey items as well as their format. They suggested, for example, that a three-point scale be used on which respondents could indicate the relative importance of the various items rather than simply checking those that seemed important. In addition, many panelists thought that a one-day workshop would be more attractive than a two-day workshop and that "piggybacking" onto already scheduled conferences would be more attractive to many potential participants than a conference standing by itself. Questions were incorporated into the final version of the instrument that attempted to find out how respondents felt about these matters.

The Survey

Copies of the survey form (Figure 2) were distributed to about 500 vocational administrators around the state. Returns received in time to have a impact on planning are summarized in Figure 2. The returns indicated that respondents overwhelmingly felt that they would at least like to know more about each of the topics listed; in no case did as many as 1/6 indicate that they did not need to know more about the topic. Moreover, more than 98% of those responding indicated that they would attend a workshop dealing with these topics.

The greatest disagreement among respondents came in identifying the most desirable length for the workshops. Of the 255 respondents, 132 opted for a one-day workshop, 91 for a two-day workshop, 20 for a half-day workshop, and 12 for a series of 2- or 3-hour workshops. Assuming that a person who would prefer a longer workshop can, generally speaking, arrange to go to a shorter workshop, whereas the opposite is less often true, the one-day workshop was chosen as the most likely to encourage attendance.

Workshop and Resource Materials Development: Competencies to be Gained by Workshop Participants

As pointed out in the discussion of the survey results, everything identified as being of possible interest turned out actually to be of interest. Covering all of the items of interest at a single one-day workshop is impossible. These results reemphasized the importance of using the resource materials and workshop presentations in a complementary fashion, as envisioned in the grant application.

Figure 2

PRELIMINARY SURVEY RESULTS

MAINSTREAMING HANDICAPPED STUDENTS IN VOC ED

AMERICAN INSTITUTES FOR RESEARCH IN THE BEHAVIORAL SCIENCES
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WORKSHOP PLANNING QUESTIONNAIRE

Which of these topics do you need to know more about?	I really need to know more about this	I'd like to know more about this	I don't need to know more about this
INFORMATION ON VOCATIONAL SERVICES FOR HANDICAPPED INDIVIDUALS			
1. Job success of handicapped individuals	91 ☐	148 ☐	53 ☐
2. Exemplary vocational programs serving handicapped individuals	159 ☐	75 ☐	8 ☐
3. How to determine appropriate program and job placements	112 ☐	110 ☐	16 ☐
4. What support services are needed	83 ☐	136 ☐	20 ☐
5. What new staff skills are needed	94 ☐	113 ☐	25 ☐
6. What inservice programs are available for staff	110 ☐	106 ☐	18 ☐
7. How to modify existing equipment and facilities	75 ☐	113 ☐	55 ☐
INFORMATION ON LEGAL REQUIREMENTS FOR EDUCATION OF HANDICAPPED INDIVIDUALS			
8. What California laws mean for voc ed	106 ☐	98 ☐	27 ☐
9. What new federal laws mean for voc ed	106 ☐	96 ☐	28 ☐
10. Administrator responsibilities under state and federal law	105 ☐	92 ☐	28 ☐
11. Sources of funding and requirements to obtain funding	140 ☐	75 ☐	19 ☐
12. Meeting due process requirements for placing handicapped students	106 ☐	103 ☐	24 ☐
INFORMATION ON RESOURCES FOR VOCATIONAL EDUCATORS			
13. Materials for assessing facilities	58 ☐	128 ☐	35 ☐
14. Resources on compliance with state and federal laws	75 ☐	138 ☐	23 ☐
15. Sources of expert advice about legal requirements	79 ☐	135 ☐	23 ☐
16. Policy manuals for providing services (e.g., definition of population, identification, evaluation, placement, service delivery, facilities and transportation, administration, etc.)	105 ☐	122 ☐	23 ☐
17. Sample report formats to document compliance	88 ☐	135 ☐	27 ☐
18. Sample educational plans	109 ☐	113 ☐	24 ☐

(over)

	I really need to know more about this	I'd like to know more about this	I don't need to know more about this
19. Lists of support services that vocational educators can draw upon	108 ☐	131 ☐	15 ☐
20. Models for working effectively with special educators	88 ☐	132 ☐	28 ☐
21. Sources of people who provide staff training	88 ☐	136 ☐	33 ☐
22. Materials on work experience programs for handicapped students	113 ☐	113 ☐	29 ☐

23. If you were to attend this workshop, how long would you like it to be? (Check one.) What would be the best time for you? (Check one.)

a. 20 half-day workshop
132 1-day workshop
91 2-day workshop
12 a series of 2- or 3-hour workshops

b. 38 workshop during the week
4 workshop on the weekend
27 workshop in the evening
138 in conjunction with a professional conference you are already attending

24. Where would you like to have it presented?

42 within your district
218 within your region
24 at a professional conference you are already attending (please specify which conference under "comments" below)

25. Would you attend such a workshop? 332 Yes 5 No

If you would like to be put on our mailing list for further information, please fill out the following:

Name _____

Address _____

Telephone _____ Position _____

School District _____

Comments _____

Thank you for taking the time to fill out this questionnaire.

Please return this form to the registration desk.

Related to the above was the need to consider the level of generality desirable in the workshop presentations and the resource materials. If the information were presented too abstractly, people would probably have trouble bringing it to bear on specific situations. On the other hand, excessive concreteness could result in the presentation of information that applied only to a very narrow range of situations and was difficult to generalize to others. The best approach seemed to be to include in the workshop activities themselves information of a kind that practically every vocational administrator would need, and to use the resource materials to present more specialized information of use in a more limited range of circumstances.

Competencies to be gained by workshop participants were formulated within the constraints imposed by the limitations of workshop length and useful level of generality. Our approach was to identify four "blocks" from which each workshop would be built. The exact nature of each block, which is to say the competencies that the block addressed, could vary from workshop to workshop as necessary. Figure 3 shows these blocks and how they related to the survey items shown in Figure 2; it also lists some sample competencies in each block. Note that these are high level competencies. This seemed to us appropriate for the target audience, as administrative responsibility would generally involve seeing to it that proper services are rendered, rather than providing the services personally.

The division of information between workshop content and resource materials, as well as the relationship between the two followed readily from time constraints and concern for appropriate levels of generality. It was assumed that, in most workshops, objectives such as shown in Figure 3, relating to general administrative considerations would be the main topics for discussion, with detailed information that could be used to deal with more specific concerns included in the resouce materials. This strategy was used in the design of the first four workshops.

It was intended that, taken together, the workshop content and the resource materials would (1) provide a good framework for providing services and (2) give information on where to turn for specialized help as a system for providing services is instituted.

Figure 3

WORKSHOP CONTENT

Block	Survey Items[a]	Sample Competencies[b]
MORALE AND EXAMPLES	1, 2, 20	Know techniques now used by California vocational educators in teaching handicapped students. Know of methods used by California educators to bring necessary vocational and special services to handicapped students.
COMPLIANCE	8, 9, 10, 12, 14, 17, 18	Know what procedures are required to assure that an acceptable class placement has been made and educational plans written. Know what is meant by terms such as "least restrictive environment" and "reasonable accommodation" and what steps must be taken to be sure that requirements relating to them are satisfied.
RESOURCES	6, 11, 15, 16, 17, 18, 19, 21, 22, 13	Know whom to contact at the state level for assistance in serving handicapped students. Know whom to contact locally for assistance in serving handicapped students. Know where to look for instructional materials of special usefulness for handicapped students.
DOING IT	20, 3, 4, 5, 7	Develop a school or district plan to identify needed steps to make vocational programs more readily available to handicapped students. Determine the order in which steps identified in the plan will be taken.

a. See Figure 2 for a list of the survey items.

b. Specific competencies must be chosen separately for each workshop, although a good deal of commonality may be anticipated.

Revisions in Workshop Format After the First Four Workshops

At the conclusion of the first four workshops, project staff took stock of their efforts and identified ways in which it seemed that the workshops could be improved. In doing this, one of the first things considered was that a goodly number of people who were not primarily administrators--they included vocational teachers, counselors, school nurses, and resource specialists among others. Thus, we had many more people than anticipated who were engaged in day-to-day contact with students. A second consideration was that, while about 71% of respondents rated the ordering of topics as 'excellent' or 'good', this was the aspect of the workshop that was rated least highly.* A third factor considered was that only about 22.5% rated the selection of the topics as 'excellent' although an additional 65.6% rated selection as 'good'. Two major changes were made on the basis of these considerations.

Change 1: Topics and Their Ordering. Because of the nature of the audience, revised topics were chosen to conform more closely to the major functions of programming, and were ordered in the normal sequence in which those would occur:

- Vocational Assessment, discussing ways of determining the capabilities of handicapped students in vocational areas. This included discussions of work-sample testing, various other aptitude tests, and the use of student records. Since, of course, it is not possible to give someone a course in tests and measurement in a couple of hours in the morning, the emphasis was placed on showing participants what kinds of assessment procedures are available, what they are good for, and who can administer them.

- Planning Instruction, showing how knowledge about student capabilities can be used in planning an instructional program. IEPs were included as part of this discussion by showing how one can go from assessment information to planning a suitable program and, subsequently, how one can use the information on a well written IEP to determine how to proceed in the classroom.

- Equipment and Workplace Redesign, discussing modifications at the school or on the job that can make it possible for a handicapped person to do otherwise difficult or impossible tasks. The objective here was not to make participants 'equipment happy', but to have them look at all aspects of

*See below under POST-WORKSHOP EVALUATION for details.

fitting an individual into the schoolroom or workplace: helping the person to acquire adaptive behaviors; altering the process by which a task is accomplished--say by rearranging the sequence of steps or altering the layout of the workplace; and, finally, in the event that these prove insufficient, the introduction of an assistive device or alteration of equipment per se.

- o Job Placement, discussing techniques and strategies for placing students on the job.

We feel that this change was effective as over 90% of the respondents now ranked the ordering of topics as either 'excellent' or 'good', while over 92% rated topic selection 'excellent' (43.2%) or good 'good' (48.9%).

Change 2: Manner of Addressing Topics. For each of the last four workshops, we were careful to make sure that participants had available a 'hands-on' experience of one kind or another for each of the topics. These were designed to supplement the presentation of information on each topic and to give participants a chance to apply what they had learned. Most of the materials needed to support these activities are contained in Workshop Materials and Suggestions for Workshop Development (Dahl, 1979). They may be briefly described as follows:

- o Vocational Assessment. For this topic, participants were either given an opportunity to 'assess themselves' using some of the VALPAR work sample components, or to analyze a job using the "Job Analysis Profile" (Figure 4) developed for the project. Working in groups of four or five, participants would analyze a job selected from the Dictionary of Occupational Titles (U.S. Department of Labor, 1977) to determine the severity of demand--from 'minimal' to 'great'--made by that job in various subdivisions of the following areas: verbal skills, quantitative/numerical skills, cognitive skills, perceptual skills, language skills, and psychomotor/physical skills. Participants were then asked to indicate the kind of assessment needed in each area. This activity provided an excellent opportunity for participants to pool their knowledge--vocational teachers were, of course, strong in analyzing job demands, while some of the others were strong in identifying the kinds of assessments needed. In identifying assessment resources, participants were encouraged to go as far as their expertise warranted--if they could name specific tests or procedures, that was fine; if they could only identify an area as being in need of assessment, that was fine too. The objective was not to make participants test experts in one morning, but to get them thinking in terms of job demands and the kind of assessment that

Form 1.2.1
(1 of 3)
Reproduction Master

Figure 4

Job: _____

School: _____

Date: _____

JOB ANALYSIS
PROFILE

Assessment/Appraisal Team:

_____

_____

_____

Special Need Indicators	min great	Assessment Resources
QUANTITATIVE/NUMERICAL SKILLS		
Count and Record		
Add/subtract		
Multiply/divide		
Measure		
General number use		
Money		
Other quantitative/numerical skills:		
VERBAL SKILLS		
Read		
Spell		
Record information		
Verbal communication		
Written communication		
Other verbal skills:		
COGNITIVE SKILLS		
Retention		
Sequence		
Attentiveness		
Planning ability		
Mechanical aptitude		
Transfer		
Other cognitive skills:		

Figure 4 continued

Special Need Indicators	min great	Assessment Resources
PERCEPTUAL SKILLS		
Auditory discrimination		
Form perception		
Form discrimination		
Space perception		
Color perception		
Touch discrimination		
Other perceptual skills:		
LANGUAGE SKILLS		
Listening		
Nonverbal expression		
Technical vocabulary		
Grammatical expression		
Other language skills:		
PSYCHOMOTOR/PHYSICAL SKILLS		
Physical strength		
Hand-eye coordination		
Manual dexterity		
Mobility		
Other physical skills:		
SOCIAL SKILLS		
Sociability		
Cooperativeness		
Conformity		
Loyalty		
Safety		
Responsibility		
Sensitivity		
Other social skills:		

Figure 4 continued

Special Need Indicators	min	great	Assessment Resources
OCCUPATIONAL INTERESTS			
Agriculture/Natural Resources			
Automotive and Power Services			
Construction/Manufacturing			
Graphics/Communications			
Food/Clothing/Child Care			
Health			
Office/Business			
Other or specific occupational interests:			

might be needed to see if a student could meet those demands.*

- Planning Instruction.** For this topic, participants were given a set of "Learner Analysis Profiles" containing information about the strengths and weakness of several hypothetical students in the same areas used in the "Job Analysis Profile." Participants were then asked to review the completed job profiles and the learner profiles to identify areas that might require special planning if one or the other of these learners were to enroll in a course to train for each of these jobs. In addition, a more extensive work-up was presented for another hypothetical student, this time including a rather detailed IEP. This information could then be used in completing a booklet Developing a Plan for Action asking participants to indicate exactly how they would go about teaching the student in question in a mainstream course. This is the kind of planning that an instructor would undertake in cooperation with other professionals to make sure that the goals in the IEP were achieved. An important point brought out in this an other sections of the workshop is that, very often, nothing special is needed; in many other cases, the special techniques required are modest and easy to implement.

- Equipment and Workplace Redesign.*** For this topic, a series of four case studies was developed. Each case study encourages participants to consider what needs to be done to make it possible for a student with a particular impairment to do a given job. The case studies require participants to think of how to capitalize upon (or enhance) adaptive behaviors possessed by the students, to consider how the process by which the job is done could be modified to capitalize on the students' abilities, and to identify the kinds of assistive devices or equipment modifications that might be useful.

- Job Placement.**** For this topic, a series of four case studies was developed which asked participants to imagine themselves as counselors or teachers assisting disabled students in career planning with the ultimate goal of job placement. Given a précis of each student's strengths, limitations, family situation, and previous

---

*It may be noted that a careful analysis of where job demands are greatest and how the capabilities of incoming students can be assessed is within the tradition of good vocational programs and is useful for all students.

**Materials developed by Dr. Robert A. Weisgerber, American Institutes for Research.

***Materials developed by Mr. Clarence Nicodemus, California Department of Rehabilitation.

****Materials developed by Dr. Kenneth Karr, Educational Consultant, San Diego.

work experience, participants were asked to consider the following questions: What new information is needed in working toward a decision on training and placement? What strengths can be developed to arrive at viable career alternatives and to provide a successful job placement? What occupations seem possible given the student's strengths and weaknesses? What roles will family play in career selection and job placement? What constraints have to be considered in job placement? What options are available to reach a career goal? How would you work with employers in your community to place each student?

It was generally not possible to get through all of the materials in the course of the day. However, each participant received all of the materials and some indicated that they planned to make use of certain of the materials in programming in their home districts.

WORKSHOP CONDUCT

Eight workshops were held, as follows:

1. San Diego, March 16, 1978, serving San Diego and Imperial Counties.

Topics:

Examples of Mainstreaming in California

Legal Requirements for Serving Handicapped Students

Technical Assistance Available to Vocational Educators Through the State Department of Education

How an Administrator and a Facilitator Work Together to Provide Services

Preparing Effective Individual Education Plans

Planning Programs for Handicapped Students

Attendance: 52

2. Concord, March 29, 1978, serving Alameda, Contra Costa, Napa, San Joaquin, and Solano Counties.

Topics:

Planning Programs for Handicapped Students

Getting Students Ready to Function on the Job

Berkeley's Experience with Handicapped Students

Where the System Succeeds, Where the System Fails: . A Consumer's Point of View

Preparing Effective Individual Education Plans

Examples of Mainstreaming in California

Attendance: 70

3. and 4. Riverside and Los Angeles, May 24 and 25, respectively. The Riverside workshop served Orange, Riverside, and San Bernardino Counties; the Los Angeles workshop served Los Angeles, Santa Barbara, and Ventura Counties.

Topics at each:

Planning Your Programming for Handicapped Students

Getting Students Ready to Function on the Job

Equipment and Workplace Redesign

Preparing Effective Individual Education Plans

Examples of Mainstreaming in California

Attendance: Riverside, 43; Los Angeles 51.

5., 6., 7., and 8. Palo Alto, October 26, 1978; Fresno, November 13, 1978; Sacramento, November 15, 1978; and Redding, March 26, 1979. Respectively, the four workshops served: Marin, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, and Santa Cruz Counties; Fresno, Inyo, Kern, Kings, Madera, Mariposa, Merced, Mono, San Luis Obispo, and Tulare Counties; Alpine, Amador, Calaveras, Colusa, El Dorado, Nevada, Placer, Sacramento, Sierra, Sonoma, Stanislaus, Sutter, Tuolumne, Yolo, and Yuba Counties; and Butte, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties.

Topics at each:

Strategies for Assessing Handicapped Students

Strategies for Instructing Handicapped Students in Mainstream Classrooms

Equipment and Workplace Redesign

Strategies for Placing Handicapped Students

Attendance: Palo Alto, 20; Fresno, 31; Sacramento, 61; Redding, 20.

POST-WORKSHOP EVALUATION

Two evaluations were undertaken following each workshop. The first, immediately upon conclusion of the workshop, was designed to get the immediate reactions of participants. The second, undertaken several weeks after the workshops, was designed to find out if participants had in fact been able to use information obtained at the workshops.

Immediate Evaluation

This evaluation used a form such as that shown in Figure 5. The first two pages were used in each workshop, with a page similar to the third being used in most; the content of the third page varied, of course, depending on the specific topics covered in the workshop. Table 1 summarizes the responses to the items on the first two pages of the instrument. The following stand out in a review of Table 1:

- Overall, greater than 80% of the respondents gave one of the two most positive responses for each item. The range was from a low of 81.3% responding 'excellent' or 'good' to the question 'How do you rate the ordering of topics?, to a high of 92.3% responding 'very interesting' or 'interesting' to the question 'How interesting was the workshop?'

- Improved rankings were obtained following the change in format between the first four workshops and the last four. (See the discussion under WORKSHOP PLANNING, above, for the nature of the the changes.) Over 90% of respondents gave one of the two most favorable replys to each of the first four Table 1 items for the last four workshops considered together.

- The great majority of participants thought that the workshops would help them in their jobs. Overall, 41.9% thought the workshop would help 'very much', 40.1% that it would help 'somewhat', and 16.2% that it would help 'a little'. The corresponding figures for the last four workshops were 47.7%, 39.5%, and 12.8%, again showing a favorable result of the changes.

Table 2 shows the number of participants who felt they gained in each of the content areas for each of the last four workshops. The response rate was much lower for this portion of the instrument than for the first two pages, with the result that so few people responded at the first four workshops that the data do not merit reporting. For each of 11 areas, the table shows the number of people reporting a gain in competence, and two

Figure 5

FOLLOW-UP QUESTIONNAIRE

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3550

1. With which type of institution are you most closely associated.

   ☐ ROP/ROC

   ☐ Comprehensive High School

   ☐ Community College

   ☐ Other _____

2. What is your position in the institution?

   _____

3. How interesting was the workshop?

   ☐ Very Interesting

   ☐ Interesting

   ☐ Uninteresting

   ☐ Very Uninteresting

4. How do you rate the topic selection?

   ☐ Excellent

   ☐ Good

   ☐ Fair

   ☐ Poor

5. Generally speaking, how appropriate was the amount of time spent on each topic.

- ☐ Exactly right
- ☐ About right
- ☐ Generally inappropriate
- ☐ Grossly inappropriate

What one topic should have been emphasized more? _____

_____

What one topic should have been emphasized less? _____

_____

6. How do you rate the ordering of topics.

- ☐ Excellent
- ☐ Good
- ☐ Fair
- ☐ Poor

Please give any suggestions you have for reording topics in subsequent workshops? _____

_____

_____

7. Overall, do you feel that the workshop (including the materials distributed) will be useful to you in your job?

- ☐ Yes, very much
- ☐ Yes, somewhat
- ☐ Yes, a little
- ☐ No

Questions 8 - 18 ask you to

- rate the importance of each topic,
- to indicate how much you feel you knew about the topic at the start of the workshop, and
- how much you feel you know now.

	Initial Level of Competence	Current Level of Competence	Importance of Competence
	a. not competent b. minimally competent c. adequately competent d. exceptionally competent	a. not competent b. minimally competent c. adequately competent d. exceptionally competent	a. unimportant b. somewhat important c. fairly important d. very important
8. Knowledge about the various kinds of assessment information that can be useful to the vocational educator.	a b c d	a b c d	a b c d
9. Knowledge of "work sample" testing and the value of the information it can provide.	a b c d	a b c d	a b c d
10. Knowledge about strategies for teaching handicapped students in a regular vocational classroom.	a b c d	a b c d	a b c d
11. Identifying vocational fields for a student to explore, given information about the student's capabilities and interests.	a b c d	a b c d	a b c d
12. Planning instruction for a particular student about whom assessment information is available.	a b c d	a b c d	a b c d
13. Knowledge of overall strategies for equipment and workplace redesign.	a b c d	a b c d	a b c d
14. Knowledge about specific solutions to sample equipment or workplace design problems.	a b c d	a b c d	a b c d
15. Identifying what needs to be done to solve sample problems, and planning a solution.	a b c d	a b c d	a b c d
16. Knowledge of strategies for finding jobs and making the student job-ready.	a b c d	a b c d	a b c d
17. Knowledge of problems that arise in job placement and strategies to overcome them.	a b c d	a b c d	a b c d
18. Applying this knowledge in individual cases.	a b c d	a b c d	a b c d

Table 1

SUMMARY OF PARTICIPANT REACTIONS

	First Four Workshops		Last Four Workshops		Overall	
	N	%	N	%	N	%
How interesting was the workshop?						
Very interesting	21	22.3	33	37.5	54	29.7
Interesting	62	66.0	52	59.1	114	62.6
Uninteresting	7	7.4	3	3.4	10	5.5
Very uninteresting	4	4.3	0	0	4	2.2
How do you rate the topic selection?						
Excellent	21	22.6	38	43.2	59	32.6
Good	61	65.6	43	48.9	104	57.5
Fair	9	9.7	7	7.9	16	8.8
Poor	2	2.2	0	0	2	1.1
Generally speaking, how appropriate was the amount of time spent on each topic?						
Exactly right	1	1.3	10	12.2	11	6.9
About right	58	75.3	67	81.7	125	78.6
Generally inappropriate	14	18.2	5	6.1	19	11.9
Grossly inappropriate	4	5.2	0	0	4	2.5
How do you rate the ordering of topics?						
Excellent	6	7.6	25	30.9	31	19.4
Good	50	63.3	49	60.5	99	61.9
Fair	22	27.8	7	8.6	29	18.1
Poor	1	1.3	0	0	1	.6
Overall, do you feel that the workshop will be useful to you in your job?						
Yes, very much	29	35.8	41	47.7	70	41.9
Yes, somewhat	33	40.7	34	39.5	67	40.1
Yes, a little	16	19.8	11	12.8	27	16.2
No	3	3.7	0	0	3	1.8

Table 2

GAINS PERCEIVED BY PARTICIPANTS

Topic Areas Discussed at the Workshops	Palo Alto		Fresno		Sacramento		Redding		Overall				Participants indicating at least adequate competence at start of workshop	
	(1) Gain	(2) No Gain	(3) Gain	(4) No Gain	(5) Gain	(6) No Gain	(7) Gain	(8) No Gain	(9) Gain	(10) No Gain	(11) % Showing Gain		(12) N	(13) %
Knowledge about the various kinds of assessment information that can be useful to the vocational educator.	6	8(7)	9	7(6)	16	19(17)	4	7(7)	35	41(37)	46.1	(48.6)	26	34.2
Knowledge of "work sample" testing and the value of the information it can provide.	8	7(6)	9	6(6)	21	14(14)	4	7(6)	42	34(32)	55.3	(56.8)	19	25.0
Knowledge about strategies for teaching handicapped students in a regular vocational classroom.	2	12(12)	4	10(9)	13	22(20)	3	8(8)	22	52(49)	29.7	(31.0)	23	31.1
Identifying vocational fields for a student to explore, given information about the student's capabilities and interests.	4	8(7)	4	9(8)	17	17(15)	2	9(8)	27	43(38)	38.6	(41.5)	34	48.6
Planning instruction for a particular student about whom assessment information is available.	2	9(7)	2	12(12)	15	19(16)	3	8(8)	22	48(43)	31.4	(33.8)	30	42.9
Knowledge of overall strategies for equipment and workplace redesign.	7	6(6)	7	7(7)	22	9(9)	6	5(5)	42	27(27)	60.9	(60.9)	5	7.1
Knowledge about specific solutions to sample equipment or workplace design problems.	6	7(7)	8	7(7)	21	10(10)	3	8(8)	38	32(32)	54.3	(54.3)	4	5.7
Identifying what needs to be done to solve sample problems and planning a solution.	5	8(7)	3	9(7)	15	14(12)	4	6(6)	27	37(32)	42.2	(45.8)	19	29.7
Knowledge of strategies for finding jobs and making the student job-ready.	3	9(8)	7	7(6)	11	19(16)	3	8(8)	24	43(38)	35.8	(38.7)	37	55.2
Knowledge of problems that arise in job placement and strategies to overcome them.	4	7(6)	4	11(11)	9	22(18)	4	7(6)	21	47(41)	30.9	(33.9)	33	48.5
Applying this knowledge in individual cases.	3	6(4)	2	11(10)	10	20(16)	4	7(6)	19	44(36)	30.2	(34.5)	32	50.8

[a] "Gain" was scored if the respondent indicated that the "current level of competence" was higher than the "initial level of competence."

[b] The number in parentheses in the "No Gain" column represents the number of "No Gain" scores when those who indicated that they were initially "Exceptionally Competent" were not counted.

figures for those reporting no gain in competence--the latter figure in this pair takes into account the fact that some participants felt themselves to be 'exceptionally competent' in certain areas at the beginning of the workshops. The second of the two percentages given in Column 11 also takes this into account. In the discussion, we will refer to percentages based on people who did not feel themselves to be 'exceptionally competent' at the outset. The following stand out in a review of the table:

- Those areas in which participants were most likely to report gains were, in some sense, outside the usual domain of vocational education. These included knowledge about work sample testing and other assessment procedures heretofore used primarily with special populations and information about equipment and workplace redesign.

- By contrast, participants were least likely to report gains in knowledge about instructional planning or seeking out job placements for students. These are the areas in which vocational educators might be expected to feel themselves strongest. Indeed, as shown in the two rightmost column of Table 2, these tended to be the areas in which participants were most likely to indicate that they were either 'adequately competent' or 'exceptionally competent' at the start of the workshop.

In sum, the great majority of those completing the questionnaire found the workshops interesting and anticipated that the information presented would be useful in their work. This majority was larger for the last set of four workshops than for the first set of four, suggesting that the changes made between the two sets had a favorable effect.

Follow-Up Evaluation

The form shown in Figure 6 was used in all follow-up evaluations. The form was intended to get fairly detailed information about specific noteworthy incidents that may have occurred in attempting to provide effective vocational services for handicapped students. The use of the term 'noteworthy' in the first item on the questionnaire was intended to elicit information about episodes out of the ordinary, not merely the routine delivery of services to students who happened to be disabled in one way or another. It is clear from the answers received that respondents recognized this.

Table 3 summarizes the responses on items for which this is possible and provides a synopsis of the various incidents. As noted in the table,

Figure 6

FOLLOW-UP EVALUATION FORM

AMERICAN INSTITUTES FOR RESEARCH
IN THE BEHAVIORAL SCIENCES
P.O. Box 1113, 1791 Arastradero Rd., Palo Alto, Ca. 94302 ● 415/493-3

1. Have any noteworthy incidents occurred since the workshop related to inclusion of handicapped students in regular vocational programs?

   ☐ Yes - Please continue below

   ☐ No - Please mail the questionnaire back to:
   Peter R. Dahl
   American Institutes for Research
   P.O. Box 1113
   Palo Alto, CA 94302

2. Background concerning the incident:
   a. Student handicap

      ☐ Blind/visually impaired
      ☐ Deaf/hearing impaired
      ☐ Wheelchair bound
      ☐ Orthopedically impaired, but not in a wheelchair
      ☐ Speech Impaired
      ☐ Mentally Retarded
      ☐ Learning Disabled
      ☐ Emotionally Disturbed
      ☐ Other _____

   b. Basic problem area

      ☐ Attitude of the handicapped student
      ☐ Attitudes of nonhandicapped students
      ☐ Attitudes of teacher(s)
      ☐ Attitudes of other staff
      ☐ Inadequate student assessment procedures
      ☐ Curriculum materials inappropriate for the student
      ☐ Teaching approaches not satisfactory for use with the student
      ☐ Special expertise needed in working with people with the particular handicapping condition
      ☐ Equipment in the labs or shops unusable by the student
      ☐ Some parts of the building to which the student needs access are inaccessible
      ☐ Other _____

   c. When did the incident occur

      ☐ Before the student began the course/program 44
      ☐ While the student was in the course/program
      ☐ When the student sought placement after the program

Figure 6 - continued

3. Description of the incident

   a. What happened? _____

   _____

   _____

   _____

   b. What led up to the incident? _____

   _____

   _____

   _____

4. What actions were called for by the incident?

   a. General description:

   - ☐ Action to change the handicapped student's attitude
   - ☐ Action to change nonhandicapped students' attitudes
   - ☐ Action to change teacher attitude
   - ☐ Action to change attitudes of other staff
   - ☐ Acquire new assessment materials
   - ☐ Arrange for assessment with an outside agency
   - ☐ Acquire new curriculum materials
   - ☐ Modify curriculum materials
   - ☐ Secure expert outside services to facilitate instruction (e.g., a sign language translator, or someone to prepare braille material)
   - ☐ Enlist services of an expert to suggest modified instructional procedures
   - ☐ Modify classroom, lab, or shop
   - ☐ Enlist services of an expert to suggest special equipment or equipment modification
   - ☐ Modify existing equipment
   - ☐ Purchase special tools or equipment
   - ☐ Make building modifications

   b. Specifically, what actions did you take? _____

   _____

   _____

   _____

   _____

   _____

   _____

Figure 6 - continued

5. Were the resource materials or workshop presentation useful to you in any of the following ways in dealing with the incident?

	Resource Materials	Workshop Presentation
Providing leads to material or printed resources	☐	☐
Providing leads to agencies that provided assistance	☐	☐
Suggesting steps to take	☐	☐

6. Please describe how you used the resource materials or information presented at the workshop.

_____

_____

_____

_____

_____

7. How could the information be increased to help others deal with incidents of this same general type? If some other topic had to be eliminated from the materials or presentations to effect this increase, which topic would you eliminate?

a. Resource materials: _____

_____

_____

_____

_____

_____

b. Workshop presentation: _____

_____

_____

_____

_____

_____

Please return to: Peter R. Dahl
American Institutes for Research
P.O. Box 1113
Palo Alto, CA 94302

Table 3

SUMMARY OF FOLLOW-UP QUESTIONNAIRE RESPONSES

Ninety-two people returned the follow-up questionnarie. Of these, 18 reported that a noteworthy incident involving handicapped students had occurred since the workshop. Thirteen of the 18 further indicated that the workshop materials or presentations had been useful in dealing with the incident. The table below reports basic statistical data gathered concerning the incidents. It is followed by a brief description of the incidents reported by the respondents and the way in which the workshop was useful.

2. Background concerning the incident:

a. Student handicap

3	☐	Blind/visually impaired
2	☐	Deaf/hearing impaired
2	☐	Wheelchair bound
2	☐	Orthopedically impaired, but not in a wheelchair
0	☐	Speech Impaired
6	☐	Mentally Retarded
9	☐	Learning Disabled
1	☐	Emotionally Disturbed
3	☐	Other _____

b. Basic problem area

6	☐	Attitude of the handicapped student
2	☐	Attitudes of nonhandicapped students
3	☐	Attitudes of teacher(s)
2	☐	Attitudes of other staff
6	☐	Inadequate student assessment procedures
7	☐	Curriculum materials inappropriate for the student
5	☐	Teaching approaches not satisfactory for use with the student
6	☐	Special expertise needed in working with people with the particular handicapping condition
2	☐	Equipment in the labs or shops unusable by the student
0	☐	Some parts of the building to which the student needs access are inaccessible
2	☐	Other Accessibility problems due to multi-level building design/no job placement available.

c. When did the incident occur

2	☐	Before the student began the course/program
14	☐	While the student was in the course/program
0	☐	When the student sought placement after the program

4. What actions were called for by the incident?

a. General description:

- 9 ☐ Action to change the handicapped student's attitude
- 2 ☐ Action to change nonhandicapped students' attitudes
- 5 ☐ Action to change teacher attitude
- 2 ☐ Action to change attitudes of other staff
- 3 ☐ Acquire new assessment materials
- 3 ☐ Arrange for assessment with an outside agency
- 2 ☐ Acquire new curriculum materials
- 7 ☐ Modify curriculum materials
- 4 ☐ Secure expert outside services to facilitate instruction (e.g., a sign language translator, or someone to prepare braille material)
- 4 ☐ Enlist services of an expert to suggest modified instructional procedures
- 1 ☐ Modify classroom, lab, or shop
- 1 ☐ Enlist services of an expert to suggest special equipment or equipment modification
- 2 ☐ Modify existing equipment
- 2 ☐ Purchase special tools or equipment
- 0 ☐ Make building modifications

5. Were the resource materials or workshop presentation useful to you in any of the following ways in dealing with the incident?

	Resource Materials	Workshop Presentation
Providing leads to material or printed resources	4 ☐	4 ☐
Providing leads to agencies that provided assistance	3 ☐	3 ☐
Suggesting steps to take	5 ☐	7 ☐

Incident--Even though the student was interested and appeared capable of learning the skills taught in the key-punch class, the curriculum materials turned out to be too difficult.

The curriculum in the keypunch class is being simplified, and reading and math instruction are being modified to emphasize more vocational skills.

The workshop helped in setting the 'philosophical approach' taken to solving this problem.

* * *

Incident--The student was having difficulty reading tests and had problems making the required 'social adjustment' to the mainstream class.

A meeting with staff to study the problem led to: (1) the identification of useful assessment materials, and (2) the assignment of an aide to assist both the student and the vocational education teacher.

Some of the materials on job analysis and student assessment were used in this case and are being incorporated into the IEP development process generally.

* * *

Incident--Visually handicapped students could not perform certain classroom tasks unaided and were taking up unreasonable amounts of the instructor's time.

Suitable magnifiers were identified, an aide was assigned, and independence training was offered.

Materials distributed at the workshop were used to inform counseling staff of the range of services upon which they could draw, and the presentation and materials both helped to locate special equipment for the visually impaired.

* * *

Incident--A learning disabled student functioned at a very low level and was poorly motivated to attend class.

Interest assessments were undertaken and an instructional program developed on this basis. The program included remedial education centering on vocational possibilities as well as a placement as a teaching assistant at the neighboring elementary school.

The workshop helped in identifying suitable employment opportunities to investigate.

* * *

Incident--A 19 year old learning disabled student had failed to graduate from high school, and staff were concerned about his ever doing so.

A meeting was held with teachers and a counselor from the Department of Vocational Rehabilitation.

The workshop was useful in identifying services available through DVR.

Incident--A learning disabled student had poor work habits, read below the level required for the course, and failed to complete course requirements.

A teacher's aide was hired to give individualized instruction to the student.

The workshop helped to show that what appeared to be an 'impossible' situation could, in fact, be worked out. It also identified sources of outside help to which the educator could turn.

* * *

Incident--The disabilities of this multi-handicapped student seemed so severe that it was difficult to find a placement for the student.

Contacts were made with community agencies to supply work for the student.

The workshop inspired the teacher to try some new things in getting a placement for the student and helped the teacher to identify agencies in the community that could offer assistance in this.

* * *

Incident--A student in a back brace was having trouble using equipment in the metal shop.

Adjustments were made in the equipment so that the student could function.

The workshop presentation showed how changes could be made.

* * *

Incident--Federal and state laws, coupled with pressure applied by advocacy groups, led to increasing consideration of the needs of the handicapped in vocational programming.

Provided a thoroug assessment program operated by an outside agency, placed a specially trained aide at each high school and instituted procedures to assure that IEPs were effectively tied to vocational programming.

The workshop information was used to 'initiate a more meaningful approach to vocational education.'

* * *

Incident--Students with various kinds of disabilities needed special help to perform satisfactorily in class.

Aides were provided to assest the students.

Materials were used to identify agencies that could be of assistance, and to identify materials that might be useful for the special needs students.

Incident--Student performing below levels expected in the health careers program.

Testing was instituted and the student was found to be educably mentally retarded. The program was adjusted accordingly.

The information presented on testing was used to suggest to counselors and teachers the kind of information that should be gathered in assessment. The information was also presented to special education teachers to point out considerations in assessing needs and abilities of possible enrollees in vocational programs.

* * *

Incident--Nonhandicapped students felt threatened by the handicapped student and reacted unfavorably to her viewpoints and attitudes during a group discussion of job responsibilities.

A class session was devoted to a discussion of the positive attributes of handicapped people as well as their problems. Better understanding and communication resulted from this discussion.

The workshop presentations helped by providing basic information on attitude adjustment.

* * *

Incident--Student refused admittance to a nurses' aide program because she could not read the text.

A simplified text was purchased, and an aide was assigned to help with reading. A work experience job in a nursing home was found for the student.

The workshop materials and presentations were not needed to resolve this incident.

* * *

Incident--Instructor reluctant to have blind student operate power equipment in a woodshop.

The student had been trained to use power equipment prior to the semester, but the instructor was still dubious. This incident was resolved by working with the teacher and various agencies for the blind to show the instructor the practicality of having the blind student work in the class.

The workshop materials and presentations were not needed to resolve this incident.

* * *

Incident--Student was behaving 'inappropriately' and not attending to tasks. The teacher wanted to drop the student from the nurses' aide program on this basis.

Inquiry showed that the teacher was under the false impression that the hearing aid worn by the student brought the student's hearing up to normal. The student was then assigned a seat in class that provided better opportunity for lip reading. In addition, counseling was undertaken with the student to emphasize the importance of the program, and to encourage the student to take responsibility for requesting information to be repeated if something was unclear.

The workshop materials and presentations were not needed to resolve this situation.

* * *

Incident--The EMR program was being phased out for lack of money.

Students enrolled in the EMR classroom were enrolled in regular classes in which it appeared they would be able to perform adequately. The respondent did not feel that this is as good as the previous special placement, but is hopeful.

The workshop materials and presentations did not figure in the resolution of this incident.

* * *

Incident--The handicapped student was distressed by mockery of the handicapped by the non-handicapped.

The student wrote articles of complaint, submitting them to the local newspaper and to the school newspaper. The former published the student's submission, the latter did not.

The workshop materials and presentations did not figure in the resolution of this incident.

most respondents (74 of 92) indicated that no noteworthy incidents had occurred. Of the 18 that did report a noteworthy incident, 13 indicated that the workshop presentations or resource materials were helpful. The range of situations in which the materials or presentations proved useful is quite varied, and the students involved had a wide variety of handicapping conditions.

DISSEMINATION

Materials were not only given to workshop participants, but were distributed through BOAE, the California State Department of Education, and other outlets, as follows:

- BOAE

  Ten copies of each resource guide were sent to the Project Monitor.

- California State Department of Education

  An average of 95 of each of the "Support Services for Exceptional Students" volumes was sent gratis to the State Department of Education for distribution.

- California Regional Resource Center

  A set of guides was sent gratis to the center so that descriptions of them could be given in a resource document. AIR's Publications Unit will make photocopied versions available on a cost-recovery basis when printed versions have been exhausted.

- ERIC

  Copies of each of the products described in the PROJECT PRODUCTS section of this document have been submitted to the ERIC Clearinghouse on Handicapped and Gifted Children.

- Miscellaneous Requests

  From time to time a request is received for one or the other of the guides to services or materials. We fill these requests at no cost from extra printed copies and will continue to do so until our supply is exhausted; then we will make photocopies available on a cost-recovery basis.

In sum, over 1,000 resource documents have been distributed as part of this project, and steps have been taken to ensure the continued availability of these documents.

PROJECT PRODUCTS

A variety of materials were developed for use at the workshops and for subsequent use by participants when they returned to their home districts. The first two annotations describe the most substantial of them. The last annotation describes a resource document that contains most of the more modest items not suitable for individual annotation.

Support Services for Exceptional Students (9 volumes). Prepared variously by Jane Spangler, Angelica Hampel, Patricia Maloney, and Carol Kaplan, these resource guides contain descriptions of important governmental and private agencies providing vocational programs and support services for handicapped students. Each guide lists statewide services as well as services in several propinquant counties corresponding to the area from which participants in one of the workshops were drawn. The purpose of these guides is to provide their users with useful leads in obtaining expert assistance in serving handicapped students in vocational programs. The guides are not exhaustive in the sense of listing every support service available, nor were they intended to be. Rather, the purpose is to give their users a clear idea of the range of services available, and to get them in touch with service delivery networks. The counties covered, in each guide are listed in Appendix A, which also contains a sample guide for the 13 northernmost counties in California.

Resources for Mainstreaming Exceptional Students in Vocational Programs. Prepared by Patricia Maloney, this resource guide provides an annotated list of printed and other media resources in the following topic areas: (1) 'Exceptional Students and Vocational Education', which contains information on exemplary vocational education programs, mainstreaming of exceptional students, and descriptions of various handicapping conditions; (2) 'Legal Requirements for the Education of Exceptional Students', which contains information on the educational rights of exceptional students, due process requirements, and the implications of recent legislation for the education of the handicapped; (3) 'Administrative Concerns', which contains information on establishing policy for teaching handicapped students in regular classes, developing programs and curricula, preparing personnel, developing IEPs, and redesigning environments to make them more accessible to physically handicapped people; and (4) 'Instructional Concerns', which contains information on improving the teaching skills of vocational educators, as well as information on instructional techniques, educational plans, and assistive devices useful in teaching handicapped students most effectively. A copy of this document is included as Appendix B.

Workshop Materials and Suggestions for Workshop Development. Prepared by Peter Dahl, and incorporating materials developed

by several of the workshop presenters, this document describes (and, in most cases, includes) materials of the following kinds used in planning and conducting the workshops: (1) 'Preliminary Survey Materials' to find out about the background of people who might attend the workshop, the topics that would be of most interest, and the scheduling arrangements that would be most attractive; (2) 'Invitations and Other Publicity' to inform people about the workshops once they have been planned and to invite their participation; (3) 'Workshop Leader Materials' to use during presentations, including printed and audio/visual materials as well as other more specialized items for use by the various presenters in conducting their portions of the workshops; (4) 'Participant Materials' including 'consumable' materials for use during the workshop and resource handouts for future reference--the most important resource handouts are described in the two preceding annotations; and (5) 'Evaluation Materials' to secure the immediate impressions of participants about what they have learned and, in the longer term, to discover if they have been able to put to use information acquired at the workshop. Each of the five kinds of material used in this series of workshops is presented, followed by a discussion of alternative approaches to developing materials of the type in question.

These three documents have all been submitted to the ERIC Clearinghouse on Handicapped and Gifted Children.

CHAPTER III
CONCLUSIONS

Given the nature of the project, conclusions may, perhaps, best be thought of as "hindsights"--that is, as suggestions for those who may wish to undertake a similar effort. Here are some of the things that emerged most clearly in the present study.

- Start with an audience in mind, but review from time to time who is, in fact, coming. In the case of the workshops described in this document, we intended to draw school and district level administrators of vocational programs. However, a much more diverse group of people actually appeared. Therefore, it was necessary to make adjustments in the workshop program so that it corresponded more closely to the needs of those in fact in attendance.

- Provide resource materials even for topics that may not be covered at the workshop. The great value of this is that it allows one to include information that may be critical later on, but which does not lend itself particularly well to a workshop activity, or that cannot be included in the program without displacing a topic more in need of discussion. At the workshop itself, one need only take a few minutes to point out the features of the materials and how to use them, then move directly to the topics that demand to be addressed at the workshop per se.

- Provide for active participant involvement in each part of the workshop. This can come in a variety of ways--trying out equipment, working on case studies, participating in a question and answer session, and so on. This should be done even for topics on which enough information could be presented to take up the time available. We found that sessions were most effective when participants were given information and provided with some "hands-on" experience related to that information.

- Have enough "consumables" so that each participant gets to keep one of each. Except, of course, for equipment or other items that are to remain behind, there should be enough handouts for each workshop activity to allow each participant to take home a full set. This is true even if fewer sets are needed to conduct the activity. Materials will allow participants more readily to share their experience with others than would be the case if they did not have the materials. Related to this is the desirability of having available blank versions of any forms that were completed by the workshop organizers. For example, one portion of the workshop session on "Planning Instruction" used many record forms that provided data about

hypothetical students; blank versions of each of these forms were also provided to make it easy for participants to introduce them into their own programs, as some indicated they would.

These are modest suggestions, but, in our experience, careful attention to them greatly enhanced the quality of the workshops.

REFERENCES

Cook, P.F., Dahl, P.R., & Gale, M.A. Vocational opportunities: Vocational training and placement of the severely handicapped. Salt Lake City, Utah: Olympus Publishing Co., 1978.

Dahl, P.R., Appleby, J.A., & Lipe, D. Mainstreaming guidebook for vocational educators. Salt Lake City, Utah: Olympus Publishing Co., 1978.

Dahl, Peter R. Planning Document. Palo Alto, California: American Institutes for Research, 1978.

Dahl, Peter R. Workshop Materials and Suggestions for Workshop Development. Palo Alto, California: American Institutes for Research, 1979.

Davis, Sharon, & Ward, Michael. Vocational education of handicapped students: A guide for policy development. Reston, Virginia: The Council for Exceptional Children, 1978.

LaVor, M.L. Federal legislation for exceptional persons: A history. In Weintraub, et al. (Eds.), Public policy and the education of exceptional children. Reston, Virginia: Council for Exceptional Children, 1976.

Maloney, Patricia A. Resources for Mainstreaming Exceptional Students in Vocational Education Programs. Palo Alto, California: American Institutes for Research, 1978.

Moore, Jean J., & Engleman, Vance S. (Eds.) Administrators manual: Programming for handicapped students at the secondary level. Salt Lake City, Utah: The Southwest Regional Resource Center, 1977.

Olympus Research Corporation. An assessment of vocational education programs for the handicapped under Part B of the 1968 Amendments to the Vocational Education Act. Salt Lake City, Utah: Author, 1974.

Phelps, L. Allen. Instructional development for special needs learners: An inservice resource guide. Urbana, Illinois: University of Illinois, no date.

Phelps, L.A., & Halloran, W.D. Assurance for handicapped learners: New law supports expanded role for vocational education. American Vocational Journal, November 1976, 36-37.

Spangler, Jane; Hampel, Angelica; Maloney, Patricia; and Kaplan, Carol. Support services for exceptional students (9 volumes). Palo Alto, California: American Institutes for Research, 1978, 1979.

U.S. Department of Labor: Dictionary of occupational titles (4th Edition). Washington, D.C.: U.S. Government Printing Office, 1977.

Weisgerber, Robert A. Vocational education: Teaching the handicapped in regular classes. Reston, Virginia: The Council for Exceptional Children, 1978.

Appendix A

SUPPORT SERVICES FOR EXCEPTIONAL STUDENTS

Nine booklets were prepared as listed below. A smaple booklet is attached.

Support Services for Exceptional Students: Fresno, Inyo, Kern, Kings, Madera, Maripósa, Merced, Mono, San Luis Obispo, and Tulare Counties

Support Services for Exceptional Students: Alpine, Amador, Calaveras, Colusa, El Dorado, Nevada, Placer, Sacramento, Sierra, Sonoma, Stanislaus, Sutter, Tuolumne, Yolo, and Yuba Counties

Support Services for Exceptional Students: Alameda, Contra Costa, Napa, San Joaquin, and Solano Counties

Support Services for Exceptional Students: Orange, Riverside, and San Bernardino Counties

Support Services for Exceptional Students: Los Angeles, Santa Barbara, and Ventura Counties

Support Services for Exceptional Students: Monterey, San Benito, Santa Clara, and Santa Cruz Counties

Support Services for Exceptional Students: Marin, San Francisco, and San Mateo Counties

Support Services for Exceptional Students: Butte, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties

Support Services for Exceptional Students: Imperial and San Diego Counties

For entire document please see ED 179 029

SUPPORT SERVICES FOR EXCEPTIONAL STUDENTS

Butte, Del Norte, Glenn, Humboldt, Lake, Lassen, Mendocino, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties

Angelica Hampel, Patricia Maloney, and Jane Spangler

American Institutes for Research

Appendix B

RESOURCES FOR MAINSTREAMING EXCEPTIONAL STUDENTS IN VOCATIONAL EDUCATION PROGRAMS

For entire document please see ED 177 790

RESOURCES FOR MAINSTREAMING EXCEPTIONAL STUDENTS IN VOCATIONAL EDUCATION PROGRAMS

Prepared by Patricia Maloney

American Institutes for Research